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Kevin N. Lewis

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LONG-RANGE THEATER NUCLEAR FORCES

Kevin N. Lewis

The Rand Corporation, Santa Monica, California

September 1980*

Last December, the governments of 14 of the 15 member states of the North Atlantic Treaty Organization (excluding France) agreed in principle to a plan to modernize NATO's so-called in-theater Long-Range Theater Nuclear Forces. The deployment is expected to counter a similar modernization effort begun several years ago by the USSR. The NATO plan, approved unanimously by the concerned Alliance Defense and Foreign Ministers, will consist of 572 nuclear missiles: 108 Pershing II long-range battlefield nuclear ballistic missiles, and 464 Ground-Launched Cruise Missiles to be deployed aboard 116 special GLCM launcher vehicles. The new weapons would be supplied by the U.S., at an officially estimated cost of about five billion dollars.

At the same time the deployment decision was announced, the top political and military representatives of the 14 nations concerned, meeting in Brussels, signaled their willingness to enter into arms-control negotiations with representatives of the Warsaw Pact in an effort to limit the deployment of intermediate-range weapons on both sides. Nine months later, in September 1980, the U.S. and USSR issued a joint communique endorsing previous proposals

[*] An edited version of this article will appear in the December 1980 Scientific American. Although they did not often agree with the arguments made below, I am indebted to my friends and colleagues in several government agencies and the Rand Corporation for their helpful comments and criticisms on several drafts. Of my Rand colleagues, I would like to thank specifically Carl Builder, James Digby, James Foster, Malcolm Hoag, Benjamin Lambeth, D.M. Landi, and Mark Lorell.

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to proceed with arms control consultations and negotiations on these weapons. Pending the outcomes of initial talks, the government of at least one NATO power, Belgium, has deferred its final commitment to the deployment plan.

According to the NATO plan (as it now stands), the U.S. would send home from the European theater of operations exactly 1,572 tactical nuclear weapons, or approximately one-fourth of the reputed U.S. nuclear stockpile now in place there. (The first 1,000 warheads would be withdrawn within a year of the final NATO deployment decision, and the rest would be recalled on a one-for-one basis as the new missiles began to arrive in 1983). The planned NATO deployment would therefore entail a net reduction of 1,000 nuclear weapons in Europe.

The new weapons to be deployed, however, would differ in important ways from the more numerous forces they will supersede. Among other things, they may be armed with new nuclear warheads which render them more appropriate for some long-range missions. Compared with other U.S. nuclear missiles, these weapons in addition will be very accurate. But what has contributed most to the planned deployment's emergence as an international point of contention is the fact that these programmed forces will be the first U.S. land-based missiles in Europe in two decades which will have the ability to strike targets in the Soviet Union.

Predictably, debate over this plan has been intense both in the United States and abroad. The issue has many components: yet, however broad the initial scope of discussion may have been, within a few months after controversy over deployment commenced it seemed that most points of view in the debate were approaching a consensus that the deployment was the best way to counter a

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Soviet buildup of like weapons systems.

The background of the NATO decision to proceed with the U.S. sponsored deployment plan is central to an understanding of the issues in the debate. SALT II is said to have formalized a condition of U.S.-Soviet strategic parity. That the North Atlantic alliance could not, however, depend solely on a massive U.S. nuclear threat to oppose substantial Warsaw Pact non-nuclear forces in Europe has been recognized for some time. To enhance alternatives to nuclear defense, the Alliance recently pursued an across-the-board defense spending increase, a coordinated long-term modernization plan, and arms control talks with the USSR. Not falling within the mainstream of the NATO-Pact balance, however, were new Soviet long-range theater nuclear forces.

With official alliance endorsement of the need to counter alarming Soviet initiatives, official attention subsequently has been devoted primarily to certain political aspects of the debate. Two of the leading arguments often heard in this debate will be discussed below. First, is the deployment necessary to prove to the USSR that NATO is willing to match decisively the former's programs? Second, can negotiated theater nuclear arms control talks be held only if NATO deals from a position of parity in these forces?

Before proceeding with these points, I will review the background of this problem. It is my initial contention that, notwithstanding the dominating importance of the alliance and domestic politics at stake, the deployment in the final analysis must be justified according to its contribution to NATO's security. It is my conclusion that the military case for the plan provides little support for the initiative. As an alternative, I propose that the resources to be devoted to these programs are more usefully spent on U.S.

central nuclear force modernization. Only if it can be demonstrated that the deployment is necessary in order to promote an arms control agreement, should the programs be continued.

* * * * *

Over the past thirty years, the specific roles and missions for which nuclear weapons have been seen as appropriate have fluctuated widely. In order to treat systematically the problem of nuclear defense, some Western analysts use a conceptual hierarchy to describe the properties both of employment doctrines and of weapons. At one end of a hypothetical spectrum of nuclear capabilities lie strictly tactical nuclear forces. These forces consist of weapons and delivery systems suited for use in a battlefield setting roughly in the same fashion as conventional, that is to say, nonnuclear, munitions. To this end, we might fire a nuclear artillery round to destroy a concentration of enemy armor or explode an atomic mine so as to create an impassable barrier. At the other end of this imaginary continuum reside the awesome central strategic systems, those forces which are assigned to a set of missions including options for less than full or full-scale attack on military, economic, and other targets of interest located in its adversary's homeland.

Between these two poles are said to fall the Long Range Theater Nuclear Forces. These are typically described as forces which, although they may be able to attack targets deep inside the territory of the other side, are designed for use principally in support of theater objectives. For example, the Soviets might attack with nuclear-armed bombers or missiles a NATO convoy unloading American reinforcements at a remote port such as Amsterdam. Similarly, British bombers might strike one of the points at which the rail gauge

changes along the Soviet-Polish border. As they are neither purely tactical nor strategic, these missions and forces bear the descriptor "gray area." For the sake of taxonomic convenience, gray area forces are generally said to be those with ranges between 1,000 and 5,000 kilometers.

Both the United States and Soviet Union have long deployed gray area systems, but the specific responsibilities with which these forces have been charged have varied. Both nations have for some time fielded tactical aircraft as well as light and medium bombers capable of striking remote targets with nuclear weapons. The Soviet Union consistently, and the United States intermittently, also have deployed a diverse array of ground and sea launched missiles, both ballistic and cruise, whose missions have been nuclear attack of targets in the countries of the major opposing alliances along the periphery of the Soviet bloc. In addition, many of the SALT-countable central strategic weapons in the arsenals of each side can attack targets at less than the full range technically possible for those intercontinental weapons. To add to these formidable arsenals, the second tier of nuclear powers--Britain, France, and the People's Republic of China--have developed and maintained weapons capable of striking targets at ranges up to a few thousand miles. The fact of a gray area nuclear competition--in many theaters but especially in Europe--is therefore more than two decades old.

Recent controversy has been caused by an abrupt departure from a condition of relative inertia in this military area (in an adverse direction in the West's view), due to Soviet deployment of large numbers of greatly improved intermediate range missiles and bombers. Some relatively vulnerable Soviet missiles installed nearly twenty years ago are being replaced and aug-

mented by what seems to be a much improved system, the mobile Soviet SS-20 missile with its three multiple independently targetable warheads. A capable new Soviet bomber, codenamed "BACKFIRE," has been entering service in growing numbers. (Both weapons will be familiar to observers of the SALT II debate, since while both can potentially be used against the United States, neither would be restricted by the Treaty. BACKFIRE can, without refueling, attack the United States by flying at high altitude and recovering in, say, Cuba. With an extra stage the SS-20 becomes an ICBM known as the SS-16). The new U.S. theater missiles are under consideration, then, partly because it is felt that they can to some degree duplicate the capabilities of the new Soviet weapons (even though the ranges of Pershing and GLCM are much less than the SS-20). The Ground-Launched Cruise Missile is similar in certain characteristics to the Air-Launched Cruise Missile which will soon be deployed with U.S. strategic forces. The Pershing II replaces an earlier U.S. nuclear missile which bears the same name, but it offers increased range and improved accuracy. So, the proposed NATO systems represent no revolution in weapons systems design or in anticipated operational concept. What is novel is the proposed rationale for their deployment.

* * * * *

In order to understand and assess the debate on long-range theater force modernization, it is useful to examine the history of this unique problem. The current forum on "gray area systems" has seen the revival of many of the issues of nuclear strategy and diplomacy with which the North Atlantic alliance has been concerned over its history. Current, like historical, debate on this subject extends far beyond strict military considerations, and

in fact is tied to a variety of difficult political questions. Most important of all of these is the matter of what sorts of enemy actions nuclear weapons of different sorts can deter. In an historic context, we are faced with this question: can U.S. nuclear power credibly disabuse the Soviets of any perception of advantage or gain were the latter to contemplate attack on Western Europe?

Ever since NATO's establishment in 1949, the unified defense strategy of the constituent members of the North Atlantic Treaty Organization has implied an affirmative answer to this question. Immediately after World War II, it was supposed among many American planners that the Soviet Union might follow a peaceful path in the postwar world and that, even if the Soviets entertained expansionist ambitions, it would be some time before the war-ravaged USSR could hope to challenge the West (which in any case retained a large mobilization potential). Accordingly, upon conclusion of hostilities in the Pacific, the United States undertook a precipitous demobilization of its armed services and defense spending was cut to help invigorate the civilian economy and to make possible generous American rebuilding assistance abroad. By 1948, however, hostile and subversive Soviet activities led many Americans to recognize a need for some level of Western rearmament.

After that, it seemed to increasing numbers of U.S. analysts that nuclear forces could play an important, and perhaps pivotal, role in U.S. plans to deter or defeat Soviet attacks, especially one on Western Europe. This could be done either by means of strategic bombardment of war-supporting industrial, political, and logistical facilities in the USSR, or else through direct attack on invading Soviet land forces and their lines of communication.

Through 1948, a serious shortage of atomic bombs precluded diversion of the few available weapons for tactical use, save under the most dire circumstances. But around 1950, the U.S. nuclear weapons stockpile had grown large enough to allow consideration of use in the theater. Such a diversion of weapons would (or so it was expected) provide the U.S. with an opportunity to exploit its much improving and relatively superior fission bomb technology. More important, it was thought that atomic weapons would provide the West with the heavy firepower needed to oppose otherwise seemingly invincible "Red Hordes." Accordingly, in December 1949, President Truman ordered the Air Force's Strategic Air Command (SAC) to include "retarding" attacks (in which atomic bombs would be dropped to impede the advance of Russian armies into territory along its borders) in its war planning. Another strategy proposed was the development and deployment of battlefield atomic weapons. (In the fall of 1953, the first battlefield nuclear launcher, a giant atomic cannon, was stationed in Europe.)

The Korean war prompted a sharp jump in U.S. defense spending. Although there had been recommendations to enhance substantially NATO's conventional capability, U.S. nuclear forces came to acquire, relatively speaking, a lion's share of the augmented peacetime security budget. American disenchantment with the progress of the ground war in Korea and other (mainly economic) factors led President Eisenhower to conclude that U.S. security interests worldwide should be defended by means of nuclear weapons as opposed to relying on a more balanced blend of air, ground and naval forces. In January 1954, Secretary of State John Foster Dulles publically enunciated the U.S. "New Look" defense posture put before the NSC privately 10 weeks earlier. The

lynchpin of the New Look, "Massive Retaliation," reserved for the U.S. the right to use nuclear arms to defeat enemy aggression, at "times and places of [U.S.] choosing." At the same time, President Eisenhower authorized the Joint Chiefs of Staff to include both strategic and tactical nuclear weapons in its defense plans.

Starting in the early 'fifties, then, the United States proceeded with a buildup of nuclear forces of all types. Many of these weapons would now be called "gray area" nuclear systems since they could strike the Soviet Union only from forward bases. While limited numbers of intercontinental-range bombers (the B-36 and, later, early variants of the B-52) served in the SAC inventory in the early and mid-1950s, a majority of the U.S.'s strategic bomber force were medium-range aircraft. The mainstay of SAC throughout the 1950s, the B-47, did not have the range to attack the USSR from the Continental United States without multiple air refuelings or ground refueling at forward staging bases. Since tanker aircraft were in short supply, if SAC was to strike designated targets in the USSR in the 1950s, a large network of bases in countries around the USSR therefore was needed. Similarly, Tactical Air Force fighter bombers and Navy carrier-based strike aircraft were generally configured towards the nuclear mission. In the case of unmanned systems, the U.S. emphasized intermediate and medium range ballistic and cruise missiles, in part because of expected technical difficulties in the development of longer-ranged missile systems.

In the mid-1950s, some strategists began to recommend the development of alternatives to the massive retaliation policy. The USSR was, after all, acquiring significant nuclear capabilities of its own. In 1953, the USSR

exploded an experimental thermonuclear device, and in 1955, Soviet bombers apparently comparable to the then-brand new U.S. B-52 were displayed at Aviation Day parades at Moscow. It was suspected that, if they did not already maintain such a capability, the Soviet Union could soon pose a most serious threat to American cities--raising the prospect that a massive American reply to anything short of all-out Soviet attack might precipitate unnecessary annihilation of NATO and U.S. urban centers. Perceptions of the Soviet nuclear threat intensified in the late 1950s, when the USSR not only demonstrated the technical capability to deploy intercontinental ballistic missiles, but also expressed the intent to deploy tactical nuclear weapons with the forces of its own alliance, the Warsaw Treaty Organization.

Looking beyond the dramatic question of the threat posed to United States and allied civilians, some analysts argued that new Soviet programs might soon make possible a Soviet sneak attack which would destroy U.S. nuclear forces which were then tied to vulnerable bases near Soviet territory. Prominent among these, in the early 1950s, Albert Wohlstetter, then an expert on defense affairs at the Rand Corporation, directed a large project whose conclusions warned against just such a contingency. Wohlstetter's project and other studies proposed broad programs to ensure the survivability of the U.S. deterrent and the United States subsequently adopted several measures to reduce the vulnerability of U.S. deterrent forces, including a strategic force modernization effort emphasizing survivable retaliatory forces. U.S. retaliatory forces programmed for the 1960s included B-52 heavy bombers which, with tanker support, could fly from bases in the U.S. to targets in Russia and still recover safely; U.S.-based intercontinental ballistic missiles in har-

dened silos; and mobile, concealed Polaris missile-carrying submarines. As intercontinental range forces expanded, B-47s were retired in large numbers. In 1961, U.S. Air Force and Navy tactical land and carrier based air forces began to be released from the strategic mission. Intermediate range ballistic and cruise missiles, such as Thor, Jupiter, and Mace, also were retired beginning in 1963.

The same Soviet progress that encouraged this U.S. effort was cause for severe anxiety in Europe. As the Soviets posed a graver and graver threat to U.S. cities, could NATO, seemingly so dependent on the American atomic "umbrella," now rely to the same degree on the prospect that the United States would reply to Soviet attack with an all-out counterstrike? Or as General deGaulle rhetorically asked, would the United States risk New York for Paris' safety? The "credibility" of a massive United States response came under greater scrutiny, and with it the nuclear keystone of NATO security.

Worse still, from the European perspective, the Soviets began in the mid-1950s to deploy large missile and bomber forces aimed at Europe. The United States had been concerned that the Soviet Union would move vigorously to pose a threat to North America, but neither the predicted "bomber gap" of the 1950s nor the "missile gap" of the 1960s had emerged. These predictions went wrong in assuming that the USSR would devote all of its considerable airplane and missile production capacity to building a force which could attack the United States directly. On the contrary, the Soviets dedicated their production to construction of intermediate and medium range bombers and missiles presumably targeted against the USSR's neighbors. Accordingly while the USSR had deployed less than 40 ICBMs and 200 BEAR and BISON intercontinental

bombers by 1962, it did field by that time more than 1200 medium bombers of various types and almost six hundred SS-4 and SS-5 intermediate and medium range ballistic missiles.

As the U.S. withdrew some of its forces to the other side of the Atlantic, its nuclear guarantee became, in some sense, less "visible," and the U.S. conferred with the European Allies to develop strategies to deal with this predicament. Strategists were particularly interested in formulas for sharing the risks in military emergency. That is, the Allies wished to render solid beyond any doubt the linkage between European and intercontinental contingencies, as these were segregated for planning purposes in American, Allied, and Soviet minds.

And so, as part of a U.S. policy review of NATO in 1959, President Eisenhower asked then-Secretary of State Christian Herter to examine this question. In December 1960--just weeks before a new administration representing a new political party was to come into office--Herter proposed an Alliance nuclear force to consist of jointly manned cargo ships carrying medium-range ballistic missiles. The scheme was dubbed the "Multilateral Force" (MLF). The rationale was that such a force would allay European concerns about the credibility of American response while avoiding the more dangerous alternative of each NATO nation's procuring its own independent national nuclear deterrent. This latter path had already been chosen by the United Kingdom and France, though this choice was essentially unopposed by the Eisenhower administration. But the prospect of including the Federal Republic of Germany (which had only joined NATO and begun to rearm conventionally in 1955) in a joint nuclear command was anathema to nearly everyone concerned,

even given President Eisenhower's determined efforts to provide the less expensive nuclear alternative to a powerful conventional defense in NATO where practicable.

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With these developments underway, the stage was set for what is called the Kennedy Administration's (or more accurately, Defense Secretary Robert McNamara's) revolution in nuclear strategy. The McNamara strategy turned on three basic assumptions.

First, reliance on nuclear weapons to the exclusion of other options was held to be imprudent. Such an approach could preclude appropriate and effective American response in crises where countervailing deterrents based mainly on nuclear threats might not be credible. Moreover, it was not clear to McNamara that NATO's members were so weak and poor that the Alliance could not hope to muster an effective conventional defense of its own territory.

Second, many within the Kennedy Administration agreed that nuclear proliferation was highly dangerous and should be suppressed if at all possible. The spread of nuclear weapons among NATO countries might not only enhance the likelihood of war, it could also undermine collaborative efforts to build a strong conventional defense.

Third, it was deemed necessary to introduce more flexibility into U.S. strategic war planning. In planning for a European scenario, this meant that the United States should not be compelled either to launch a massive retaliatory strike against the USSR or else to do nothing. Rather, the U.S. should be ready to reply at whatever level was appropriate. This, it seemed to McNamara and his advisers, probably was the only way that nuclear weapons

might be integrated into Allied defense without foreordaining large scale civilian destruction in all the nations concerned.

Working from these assumptions, President Kennedy and his advisers were inclined to reject plans for nuclear sharing arrangements and for independent deterrent forces. Instead, Kennedy and McNamara decided on a policy of increased flexibility of the U.S. deterrent force and a determined buildup in nonnuclear military forces.

McNamara outlined the new strategy before a select audience of senior alliance officials in a top secret NATO meeting in Athens in May 1962. Just weeks later, however, McNamara laid the matter before the public in an address at Ann Arbor, Michigan. McNamara's proposals were condemned--by many Americans, certainly by the Soviet Union, but also by some allies, largely because the strategy required increased reliance on non-nuclear defense. Not only was this expensive, but it was believed that such a posture would bring about the "decoupling" of the traditional U.S. retaliatory deterrent from the requirements of a NATO-Warsaw Pact conventional conflict--severing in the process the defense of Europe from the security of the United States.

The Kennedy-McNamara initiatives met for a time with a largely negative fate. The MLF plan was terminated in 1965, but the British and French continued with their own deterrent strategies. Although the United States created a coordinative Nuclear Planning Group in the early 1960s, in 1966, France withdrew from the Military Planning Committee of NATO. However that may be, these and other precursors did facilitate, in 1967, the adoption by NATO of the U.S.-sponsored "Flexible Response" war strategy, thereby accepting formally McNamara's original proposed doctrine. Yet while nominal doctrine

had changed, NATO's posture remained fundamentally unchanged compared with that of the early 1960s. That is to say, NATO's shift in strategy was not complemented by material change in combat wherewithal, nor by basically different employment plans.

In fact, official NATO planning only began to prepare for realistic nuclear war contingencies in the mid-1970s. The credit for this development is due then-Secretary of Defense James Schlesinger, who sought to introduce more credible limited nuclear option planning into U.S. targeting. Schlesinger's strategy for flexible employment gave NATO attack options other than a relatively severe nuclear reprisal in the event of Soviet aggression. The logic behind the new policy was that such a strategy filled a gap which had always existed in what might be imagined to be a spectrum of NATO planning contingencies between strictly conventional European defense and more-or-less general nuclear war. With this new strategy in force, proponents of the plan argued, the USSR could no longer rely on the assumption that the U.S. might be self-deterred from escalating a conventional conflict to an "advanced" nuclear level, in order to spare American cities from Soviet retaliation which would be almost sure to follow a large U.S. strike. There would be more effective steps in between the extremes of holocaust and surrender.

The theory behind the Schlesinger plan did not differ in principle from that put forward by McNamara in the early 1960s, but the Europeans accepted the new Schlesinger doctrine because (among other reasons) he deliberately set out to neutralize the source of European concerns. For example, in 1974, Schlesinger explicitly stated that all U.S. central strategic forces would from that point on have some theater nuclear capability. Schlesinger

took pains to brief the Germans on U.S. strategic capabilities and plans, and Europeans attached to United States planning organs were able to verify that overall U.S. nuclear preparations were, in essence, written to support NATO objectives. Moreover, when the U.S. started placing multiple independently targetable warheads (MIRVs) atop its missiles in the early 1970s, this generated a much larger arsenal of warheads and facilitated much wider targeting not only in intercontinental strategic planning but also in European theater planning: more MIRVed Poseidon warheads reportedly were assigned to NATO. At the same time, Schlesinger ordered vigorous U.S. force initiatives aimed at improving NATO's nonnuclear defense. In sum, the Europeans were impressed with Schlesinger's evident interest in problems of great concern to them.

The prominent theme of this history is that the U.S. first deployed gray area systems in Europe mainly because of deficiencies in longer range delivery technologies. As the American deterrent was withdrawn to its homeland, and as Soviet forces expanded and improved, our European Allies became more concerned with the linkage of the massive American retaliatory force with the conventional defense of Europe. From the start, U.S. policy planners have recognized that Allied confidence with the connection of the two could be sustained by any of several means. But a recurring lesson has been that European anxiety with the linkage of NATO defense and the U.S. nuclear umbrella may be more related to Alliance perceptions of the resolve and ability of American leadership than to on-hand military power.

The stage was now set for the most recent act in the drama of Long Range Theater Nuclear Forces. In October 1977, Helmut Schmidt, Chancellor of the Federal Republic of Germany addressed the prestigious International Insti-

tute for Strategic Studies in London on a variety of security topics. The key point of his address came when Schmidt contended that the principle of parity required that NATO match Soviet capabilities at every level. Pointing out the threat posed by a new and potent generation of Soviet theater nuclear forces, Schmidt called for the establishment and maintenance of what has come to be known widely as a "Euro-strategic balance." New NATO forces would clearly be necessary if the threat posed by upgraded Soviet long-range theater nuclear threat was to be neutralized.

Why did Schmidt make those remarks at that time and in the fashion he did? As the preceeding historical review suggests, the American nuclear guarantee to Europe has been only as good as the confidence with which the Europeans held the American political leadership. The renaissance of the linkage problem can to some degree be attributed to European concern with apparent confusion in the Carter Administration's foreign policy. At that time, among other things, the Allies were worried about U.S. handling of Soviet and Cuban activities in Africa, President Carter's abortive invitation of the USSR into the Middle East peace talks in the Fall of 1977, and the President's seeming inability to resolve U.S. economic and energy problems.

On military matters, the German leadership was especially disturbed by disclosures by some newsmen that an early Carter administration analysis of NATO strategy recommended trading off much West German territory for a more secure defense perimeter closer to the Rhine. President Carter's disagreements with Germany on the subject of German sales of nuclear technology abroad and particularly his handling of the "neutron bomb" issue did not enhance the President's European popularity, especially in West Germany. Schmidt and oth-

ers were also worried by rumors voiced in the media prior to the signing of SALT II that President Carter was bargaining away the remarkable cruise missile in the SALT II talks, a weapon system that--so Schmidt (himself an expert and historical participant of note in such affairs) had said--could revolutionize NATO defense against Soviet attack.

In this way, the U.S. deployment plan has come to be debated and discussed largely in the context of such psychological questions as "perceptions of resolve" and "decoupling." Yet while a series of political and diplomatic episodes fulminated, the military and strategic aspects of the missile plan have unfortunately been overlooked, both in official circles and in the public forum. In this case, we must evaluate the relative value of those deployments in the larger context of the U.S. defense program and NATO security. Pressures on the U.S. defense budget especially should condition our analysis. The deployment of the two missiles was originally estimated to cost on the order of five billion dollars, but certain program costs have already escalated by a factor of ten. Every dollar invested in these forces will trade off with other vital U.S. programs, especially strategic force improvements. Hence, we must ask whether the military case for these weapons is so strong that the deployment should trade off with these other capabilities. If the military case is not sufficiently compelling, then we must determine whether the deployments are prerequisite to theater nuclear arms control progress. If neither condition holds, the programs should be promptly terminated.

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The planned deployment of the Pershing II and GLCM can be justified on

military grounds if their value in one of two military capacities can be shown. First, the weapons might add military potential to the NATO arsenal by providing new military capabilities. Second, they might be justified either to counter Soviet weapons or threats or to play some special strategic deterrent role.

What new role could the two American missiles play that could not be satisfied by existing or improved American central strategic systems? GLCM and Pershing are remarkable weapons, but neither really provides new capability or options. GLCM functions exactly as do air and sea-launched cruise missiles and differs only in its storage and basing particulars. Pershing II similarly could provide no tactical service currently not in-hand in the U.S. strategic arsenal. The only possible advantage conferred by Pershings in Europe would be in a strategic role: the weapon could arrive so quickly and so accurately on targets in the USSR that it could be a valuable adjunct to central strategic forces in some kinds of limited strategic nuclear wars. However, it does not seem that the United States has configured its Pershing program around this useful mission, and that an equivalent military capability probably could be had by proceeding with a depressed-trajectory capability for U.S. Navy strategic missiles.

Whether or not their technical characteristics are novel, an allied question in official evaluation of the proposed deployment should be what new targeting possibilities would be opened up to the NATO's Supreme Commander after these weapons have been deployed? But again, while some observers of NATO may perceive a warhead shortage, the size of the central war stockpile is such that U.S. strategic forces, and especially, invulnerable sea-based mis-

siles, can pick up any targets of interest to theater commanders, except certain hard targets which would require attack by bombers, Air Launched Cruise Missiles, or ICBM warheads.

One claim made in support of the deployment is that these new NATO nuclear missiles are specifically needed as a counterforce to the Soviet missiles deployed opposite them. In this respect, these new forces are identical in intended role to the U.S. Jupiter, Thor, and other missile systems deployed or proposed two decades ago. Unlike those 1960-era missiles, of course, Pershings and GLCMs would escape destruction by constantly moving around the countryside. However, the necessary concentration by both sides of nuclear weapons and delivery systems at heavily guarded installations in peacetime for security's sake may negate the advantage of mobility before war starts. (Given political constraints, the new long range theater nuclear force would presumably be deployed only in the gravest emergency: indeed, weapons might be retained at storage facilities so as to avoid provocative escalation of a crisis.) But by the time NATO's missiles have been deployed, many of their intended Soviet targets--mobile missile launchers and aircraft capable of operating from numerous airfields in the Western USSR--could have similarly "disappeared."

Hence, even if the weapons are as survivable as their proponents allege, they might not be able to attack effectively some of their appointed targets because their Soviet counterparts are not only mobile themselves, but have longer range besides. Thus far, no solution to the problem of locating mobile targets in the USSR appears to be capable of withstanding all of the technical and organizational rigors and countermeasures of combat. Perhaps

from time to time targets could be found by both sides. But unless the responsibility for making decisions to use nuclear weapons to destroy any target appearing spontaneously was delegated to field commanders, knowledge of those targets' whereabouts might be perishable in practical terms. Not only are nuclear use procedures rigorous and complex, but the U.S. is committed to confer with its allies before releasing weapons for employment, inserting possibly large delays into targeting, and possibly allowing targets to escape. Only in extreme scenarios where one side or the other had failed to disperse its mobile forces or where either the U.S. or Soviet President chose to escalate quickly to the nuclear level, could one be confident in the ability of either sides' mobile systems to perform coherent and integrated nuclear operations. Pending such a catastrophic turn of events, the capabilities of the mobile gray area forces of both sides presumably might decline over time, as some missiles were destroyed by conventional attack and as others degraded through lack of field support.

Some additional operational points have been submitted in favor of the new deployments that are reputed to rule out retargeting of some strategic forces to theater attack missions. For example, some observers argue that in-theater basing is necessary for purposes of command and control. However, the command-control arrangements for new long-range theater nuclear forces are, to the contrary, less reliable and less adequate than those for U.S. central systems if nuclear war were to break out in Europe, for U.S. strategic systems are connected and controlled by communications systems which would not be disrupted by virtue of proximity to a large land conflict. Some U.S. weapons can in principle be readied promptly, and by virtue of their more advanced charac-

teristics and the fact that intelligence network entry points and data fusion capabilities were more survivable by virtue of their location Stateside, U.S. central systems could enjoy much better intelligence and reconnaissance support during a war than might LRTNFs.

Others say that in-place theater nuclear forces are mandatory since U.S. strategic systems committed to NATO could, without the Allies' knowledge, be retargeted in such a way that betrays their interests. Such a claim surely ignores the realities of nuclear targeting: since the McNamara years, the Allied military services have formal liaison with U.S. targeting officials and are fully aware of our nuclear war plans at least so far as they apply to contingencies relevant to European security.

Finally, if there must be nuclear forces in NATO, some military officers would prefer that new missiles be assigned to the job instead of combat aircraft (which undoubtedly would be needed in conventional fighting). If missiles can free up those aircraft from standing ready on nuclear alert, then some might find the plan worth it. But there is no particular reason why the alternative to NATO's "Quick Reaction Alert" ready nuclear-armed fighter aircraft need be GLCMs and Pershings, compared to warheads aboard current U.S. strategic systems.

In sum, it is hard to think of any tactical or targeting reasons for pursuing the deployments that would justify, on their military and political merits, the high costs of the two programs. On the other hand, funds invested in improved strategic forces would benefit both the strategic and theater nuclear missions as opposed to only the one. Because the GLCM and Pershing programs trade off--in budgetary and materiel terms--with such overdue stra-

tegic programs as MX, Trident, and ALCM, the extra investment in the new gray area forces only would seem to be justified if some theoretical deterrence distinction between gray area and strategic systems can be drawn.

Accordingly, much attention has been paid to the second military rationale for the deployments: analysts have become concerned with the deterrence implications of not countering ongoing Soviet military expansion. From a European perspective, two threatening new developments in recent military affairs are: the Soviet deployment of a large and much improved arsenal of SS-20 mobile Intermediate Range Ballistic Missiles and BACKFIRE bombers, and the formalization of strategic parity (with adverse trends on-going, measured in some ways) between the United States and the Soviet Union. Some analysts argue that, given equivalence in strategic nuclear capabilities, the U.S. might be less willing to respond to Soviet attack against Europe with a nuclear salvo that might provoke a counterblow against the American homeland. For this reason, some Western defense analysts have warned of the serious asymmetry posed by Soviet long-range forces not countered by similar NATO weapons.

These concerns have led to popularization of a new species of theory concerning the historic problem of coupling. It is said that the USSR could launch nuclear strikes at neighboring countries from bases within its own borders. NATO could not reply without relying on U.S. strategic weapons, which, it is said, the U.S. would be less likely to use, (and, more importantly, which the Soviets might believe the United States to be less likely to use), given the circumstance of strategic parity. Thus the Soviet Union would be a safe sanctuary from which nuclear sorties could be fired against Europe.

The task now before NATO, according to this line of thought, would be to bridge a perceived gap in the "escalation spectrum" or to achieve "escalation dominance," (to use the terminology of some theorists) by means of analogous Pershing and GLCM missiles. However, the rationale for this requirement rests on a few assumptions, none of which are immediately apparent. Consider several cases in point of the shortcomings of the body of theory surrounding the notion of what is said to be a ventilated escalation pathway.

First, how sound is the notion of a Soviet sanctuary in a nuclear war in Europe? Does the current lack of Pershing II and GLCM missiles signal a material asymmetry between NATO and Warsaw Pact combat capabilities? There are many reasons to believe that "escalation gap" is not, at least from the vantage point of the European military balance, a meaningful concept. Admittedly, under some circumstances, there may be inescapable distinctions between attacks using, say, Minuteman and attacks using shorter ranged systems against theater targets. But the escalation gap notion goes wrong in assuming that NATO believes that it does not now have, and could not improvise, a strike using existing forces. In fact, many options open to NATO do lie between the two bounds of central and theater systems. The U.S. currently operates about 60 FB-111A aircraft and some 300 tactical fighter-bomber variants of that airplane (two wings of which are now based in the United Kingdom). Moreover, the United States has earmarked about 75 B-52Ds for potential service in the European theater; political appearances of theater origination of weapons might be maintained by having B-52s en route from the United States to European targets touch down at, say, English bases, even if for a moment. Further, the U.S. could call on its large Poseidon submarine force to attack targets which air-

craft could not strike. The United States now allots several hundred Poseidon warheads strictly to NATO contingencies, and there is no reason to suppose that this commitment could not be augmented. In short, it is therefore not clear that the United States would feel that its hands were tied even if it felt that systems like Minuteman should not be used.

A related problem with this theory is the question of the British and French independent deterrent forces. A Soviet "sanctuary" will only exist if the USSR can convince the French and British that they too are sanctuaries. Otherwise, Soviet attacks on French and British forces might spark independent retaliation, dissolving the sanctuary notion and perhaps escalating conflict in the process. The Soviets would be hard pressed to achieve that latter goal, though, if conventional fighting preceded nuclear war. Britain maintains personnel in West Germany (and Berlin), as does France, and both would be involved immediately if war broke out. Under the circumstances, the Soviets could have little assurance that the British and French governments would necessarily accept any Soviet pledge that they would remain sanctuaries. (Indeed many of the targets which the Soviets presumably would strike with SS-20s or BACKFIRES are air bases and other installations located in the United Kingdom). True, the argument of "self-deterrence" which in effect underlies the sanctuary war concept could be imputed to French and British decision-makers by Soviet theorists once war had broken out. That is, by holding back a substantial force capable of annihilating each country, the USSR might be able to deter independent retaliation by France or the U.K. But this is no major change from the conditions which have informed British and French planning for some time, and if those independent European forces have any deter-

rent power today, modernized Soviet gray area forces do not change materially that fact. Moreover, the mere existence of the French and British forces complicates Soviet planning, and potential incentives to both those powers to unleash their nuclear arsenals if the prospect of Soviet occupation of Europe seemed imminent remain compelling, no matter what is the specific character of the theater nuclear threat.

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But the most important assumption required by the sanctuary war theory is the least satisfying. The "sanctuary war" hypothesis demands that the Soviets be very sensitive to the launch origins of the warheads which land on their territory. If the Soviets did not care where those nuclear warheads came from, there would be no need for specialized medium range nuclear forces for NATO: the United States could simply draw from its strategic arsenal and avoid the outright expense and political liabilities inherent in European based systems in the first place. The crucial question we must examine is whether the Soviets do care from whence an attack originates.

In United States strategic theory, fine distinctions separate "tactical" from "strategic" nuclear warfare. While Soviet military doctrine has its ambiguities, Soviet theory labels that distinction artificial. To a large extent, the difference between U.S. and Soviet thinking on the subject is conditioned by the different geographies of each nation. From the American point of view, it is easy to discriminate between Soviet weapons arriving in Europe, Japan, or China from weapons arriving in, say, North Dakota. However, to Soviet eyes, there is less difference between a NATO weapon exploding at a SS-20 base in the USSR and a U.S. attack on an ICBM farm which might only be a

few kilometers away. Attacks on other forces, such as Soviet Long Range Aviation aircraft or Navy missile vessels are subject to even more obscure ambiguities.

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In sum, the military case for Long Range Theater Nuclear Forces is not immediately apparent. Nonetheless, there are those, finally, who even while agreeing with the points above, would argue that these new weapons are necessary for political and arms control reasons. Indeed, Allied interest in developing a political means for restricting Soviet deployments explains how the issue developed into the widespread controversy that it is today. Should politically grounded pressures for deployment overrule the military case against modernization? To answer this question in detail would involve a lengthy review of complex and troublesome issues. But as I have argued here, the political case for deployment must be sufficiently strong to overcome many valid operational and military criticisms.

At stake in this latter context are basically two issues. First is the question of U.S. leadership in the Alliance. At one point, prior to the December 1979 Ministerial meeting, deployment was seen as an opportunity for the United States to restore Allied confidence with American foreign policy and to provide the focus for a unified NATO stand in the face of Soviet actions. With approval of the point last year by NATO governments, this first matter has been settled.

The question of alliance solidarity aside, a second matter, currently of great political importance, has been whether the deployments are prerequisites to meaningful limitation of these nuclear forces which have not been

considered to date in the bilateral U.S.-USSR SALT process. It is the official position of the United States government that negotiations to restrict long range theater nuclear forces should proceed, at the very least, from a position of parity, even if the basis for that equality is defined only in principle and not by equivalence in numbers and capabilities of launchers and warheads. The reasoning behind this position is that the USSR will perceive no incentives for arms control if NATO possesses no leverage for compelling Soviet participation in a treaty to regulate these systems. If NATO pursuit of the Pershing and GLCM is the only way to invite meaningful Soviet participation in talks, then this unfortunate fact alone may overrule the military and economic case against the new missiles. Here we must briefly speculate on the course of the deployments and the likelihood that a reasonable arms control forum can be established. In this regard, three facts should be noted.

First, the Soviets may finish their deployment of SS-20s and BACKFIRE bombers before NATO's counterdeployment even begins. Moreover the Soviet deployment would ultimately represent, in terms of numbers of warheads on launchers, a force at least twice as large as the proposed NATO initiative, even if all of the current aging and redundant Soviet systems are withdrawn as new forces are deployed. An interesting characteristic of the upcoming LRTNF talks, then, is that the U.S. and its partners will be obliged to try to counter existing Soviet systems with future NATO ones. The motivation for the Soviets to undercut domestic political support in NATO for a deployment yet to get underway (and hence the advantages in delaying the course to a meaningful agreement) must be obvious to Soviet planners.

Second, the Soviet leadership, consistent with their historical prac-

tices, ultimately will attempt to link their specialized long-range bombers and missiles to those NATO aircraft, based on land and on aircraft carriers, which are "dual-capable," (which is to say that they can carry both conventional and nuclear weapons). Also drawing from the historical record, however, the USSK will not permit its own dual capable aircraft--deployed in ever growing numbers--to be included in the reckoning of theater nuclear arms control ceilings. Given that all front-line ground attack aircraft now being deployed by the U.S. to NATO (except the A-10 close air support airplane) can carry nuclear bombs, restrictions on dual capable aircraft would impose severe constraints on NATO's conventional defenses. For this reason, unless the USSR is willing to accept the negotiating principle of "reciprocity" there can be little hope for gray area arms control. Reciprocity means simply that forces must be counted against like forces, and not against other capabilities in an asymmetric fashion.

Third, given that (1) both sides could deploy LRTNF elsewhere and then airlift them quickly into Europe; and (2) that not only the military allies of the U.S. and USSR but other independent entities, such as France and the People's Republic of China, have aircraft and missiles analogous to those embroiled in the current debate, there will be a need to integrate all pertinent forces into talks if a treaty is to have practical force. It makes little sense to restrict the numbers of U.S. and Soviet launchers in the European area, for example, when the USSR can easily augment their "limited" capability with fresh equipment flown in from the Central or Eastern USSR. Similarly, whether or not the Soviet Union suspects that China, say, is in league with NATO, the USSR's leadership will consider the threat arrayed against them

as a whole, and they may insist that all pertinent forces which conceivably could threaten them be counted off against Soviet capabilities. This, of course, is unacceptable from NATO's perspective.

Other serious difficulties with the course of theater nuclear arms control could be added to this list, but these few cases suggest that the negotiations will be treacherous and problematic indeed. Undoubtedly talks will stretch along towards the time that U.S. deployments are scheduled to begin. Even so, despite the certainty of confusion with these and other points, there seem some major opportunities to be had in negotiation. The USSR obviously is concerned with the proposed U.S. systems. Perhaps it is the case, all things considered, that the USSR's fear of Pershing II and GLCM will motivate a prompt settlement of the question.

Yet, putting aside the strident tone of Soviet condemnation of NATO's proposed actions, because the USSR has initiated this current type of the military competition, the responsibility for resolving the issue at the earliest point must lie with the USSR. If the Soviet Union does not demonstrate a serious commitment to arms limitation, NATO must make a difficult decision. Up until a point, NATO can preserve the option to deploy GLCM and Pershing as scheduled. We can adjust the constitution of the program, for example, by deploying more Pershing launchers and fewer GLCMs, or vice versa. The technologies devised especially for Pershing might even prove integrable into some existing strategic forces.

However the technical setting may change if discussions fail and the value of the deployments as a basis for negotiation may be weakened. At that point, weapon system issues must be judged more on their combat merits than

would be the case in circumstances of cooperation and restraint. Regardless of the progress in the upcoming talks, defense planners must cope with military and financial, in addition to political, difficulties. For this reason, if speedy and effective arrangements and understandings cannot be forged and if the political rationale for long range theater nuclear forces ceases to be strong, then the new deployments should be cancelled. At the same time, the United States should act so as to impose on the USSR a penalty for failing to participate in arms talks in good faith. An expanded strategic nuclear effort seems one candidate for activation should talks fail.

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The United States currently is wrestling with the negative implications of lean defense budgets in the face of vigorous and expanding Soviet efforts. It is unclear whether vital programs of other sorts have been or can be funded at levels adequate to ensure effective U.S. and NATO competition with aggressive Soviet efforts in many arenas. That being the case, a decision to commit vital funds to new weapons of less than obvious military worth should only be entertained if there simply is no political alternative than to proceed with this plan, and if the political importance of one particular approach rules out alternatives. Political leaders must, in short, base their decisions on the foreknowledge that long range theater nuclear force modernization would trade off with more adequate funding for central strategic forces and theater non-nuclear forces.

The final decision to ^{or} deploy, in summary, must rest on NATO's joint determination that the plan is so necessary, from a policy perspective, that more important military programs should be undercut. Probably the only

development which would render the new forces sufficiently attractive would be the promotion of wide-ranging arms control agreements on theater nuclear and even conventional forces, in addition to superpower strategic systems. Every other cause--military capability, demonstration of resolve, and so on--seems better served by expansion of the strategic nuclear program. That being the case, perhaps more in the interests of stability and deterrence would be direction of attention towards political and strategic causes of concern with the U.S.-Soviet nuclear balance, and not devotion to a theory which addresses only the symptoms of that concern. If the will and national policy coherence do not exist to explore the resolution of the gray area arms race--begun by the USSR, and joined reluctantly by the West--the programs should be terminated.

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